



TARI

COMPUTER
ENTHUSIASTS

WELLINGTON

Wellington Atari Computer Enthusiasts

NEWSLETTER NO. 9: AUGUST 1983

Dear Members,

Herewith the August Newsletter of the Wellington Atari Computer Enthusiasts.

2) Our next meetings will be on 7th September, at 7-30 p.m.. The venue will again be the T.A.B. building on Lambton Quay.

3) Having completed the process of approving the Group's Constitution we can settle down to a full evening's computing! At the meeting we will: demonstrate Club Tape #6 - this includes: DEFENSE, TOUCH-TYPING, FLAGS, and GUESS THE ANIMAL, plus two small graphics demos; demonstrate the programs on disk #1 of the Group's Library (See Para. #4 below); demonstrate some new commercial software, if any members have some at the meeting; and also have a discussion/demonstration of the programs developed by the children who attended Group's Pilot Classes.

4) Included in this Newsletter is a statement of the programs available from the Group Library. So far the demand for these programs by members has not been great, so members, particularly new ones, may value a statement of how to acquire these programs. Put simply, the programs cost 50 cents each, members have to supply a tape, and they should let either LAI BEH or The Secretary know their requirements (preferably in a CLEARLY written list). If you miss either of us at a Meeting send The Secretary a letter. We will return the tapes as soon as possible.

5) SOFTWARE... The committee feels that the only area in which the Group is not making sufficient progress is in the development and demonstration of "indigenously produced" software. We would like to give listings of member produced software in the Newsletter and to demonstrate your programs at our Meetings. So, would those who have developed programs (and have an even better developed ego) bring both to our next meeting, there will be time.....To start the ball rolling see "North Island Distances" in this issue.

6) In my care at the moment (Mike Munro being overseas) is the Newsletter of our Australian counterparts The Melbourne Atari Computer Enthusiasts (M.A.C.E.) I also hold "MICROPROBE", again an Australian product. Both are highly recommended. The first person to ask we can borrow them.

7) We have also a Survey in this Newsletter. The committee's aim is to obtain information that will enable us to make Group Meetings more useful, the Newsletter more apposite, and Club Tapes better pitched to members' requirements. We guarantee that member's replies, which hopefully will include a statement of their computing equipment, will be held in a safe place.

Des Rowe
Secretary.

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REM NORTH ISLAND ROAD DISTANCES
REM BY KEITH HOBDEN W.A.C.E.
REM MEMORY REQ. 11K 14/8/83
GOSUB 600
TOTAL=N0
REM MAIN PROGRAM LOOP
FOR QUEST=N1 TO N10
FROMNUM=INT(RND(N0)*(N3*N10+N1))+N1
TONUM=INT(RND(N0)*(N3*N10+N1))+N1:IF TONUM=FROMNUM THEN 50
FROMSTART=(FROMNUM-N1)*N16+N1:TOSTART=(TONUM-N1)*N16+N1
DISTANCE=DIST(FROMNUM,TONUM)
? "+++NORTH ISLAND N.Z."
1 ? "++QUESTION ":QUEST
1 ? "↓HOW FAR IS IT FROM:"
1 ? NAME$(FROMSTART,FROMSTART+N10+N5):? "TO "NAME$(TOSTART,TOSTART+N10+N5)
1 ? "++GUESS DISTANCE IN KILOMETRES "":INPUT GUESS
1 ? "ACTUAL DISTANCE IS "":DISTANCE
SCORE=N10*N10-ABS(GUESS-DISTANCE):TOTAL=TOTAL+SCORE
? "++YOU SCORED "SCORE:" ON QUESTL."
? "↓TOTAL SCORE: "TOTAL:IF HIGHSCORE()-999999 THEN ? " HIGH SCORE: "HIGHSCORE
? :? "++PRESS RETURN TO CONTINUE"":INPUT ANS$
NEXT QUEST
REM FINAL PAGE
? "+++NORTH ISLAND N.Z."
? "+++YOUR FINAL SCORE WAS "":TOTAL
? "OUT OF A POSSIBLE "":N10*N10+N10
IF TOTAL>HIGHSCORE THEN HIGHSCORE=TOTAL
? "++CURRENT HIGHEST SCORE "":HIGHSCORE
? "++++DO YOU WISH TO TRY AGAIN (YES/NO) "":INPUT ANS$
IF ANS$="Y" THEN 10
END
REM INITIALISE VARIABLES
N0=0:N1=1:N2=2:N3=3:N4=4:N5=5:N6=6:N7=7:N8=8:N9=9:N10=10:N16=16
DIM NAME$(496),TEMP$(N16),BLANK$(N16),ANS$(N1),DIST(N3*N10+N1,N3*N10+N1)
BLANK$=" ":BLANK$(N16)=BLANK$:BLANK$(N2)=BLANK$:HIGHSCORE=-999999
REM TITLE PAGE
GRAPHICS N1+N16:SETCOLOR N2,N1,N10+N2
POSITION N0,N2:? #N6;" NORTH ISLAND N.Z.:POSITION N2,N3:? #N6;"=====
POSITION N0,N7:? #N6;" this is a guessing game based on the SHELL ROAD MAPS"
POSITION N0,N10+N2:? #N6;" guess the distances between locations in the north island in kilometres."
POSITION N0,N10+N8:? #N6;" there are in total 10 questions with a maximum score of 100 points each."
REM SETUP NAME ARRAY
FOR I=N1 TO N3*N10+N1
READ TEMP$:TL=LEN(TEMP$):IF TL(N16 THEN TEMP$(TL+N1)=BLANK$
IART=(I-N1)*N16+N1:NAME$(IART)=TEMP$:NEXT I
REM SETUP DISTANCES ARRAY
FOR I=N1 TO N3*N10+N1:FOR J=N1 TO N3*N10+N1
IF I=J THEN DIST(I,J)=0
IF I>J THEN DIST(I,J)=DIST(J,I)
IF I<J THEN READ TEMP$:DIST(I,J)=TEMP$
NEXT J:NEXT I
RETURN

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Cont. over

999 REM NAMES OF LOCATIONS

1000 DATA AUCKLAND, DARGAVILLE, GISBORNE, HAMILTON, HASTINGS, HAWERA, HICKS BAY, KAITIA, MASTERTON, NAPIER, NATIONAL PARK
 1010 DATA NEW PLYMOUTH, OHAKUNE, PALMERSTON NORTH, ROTORUA, TAIHAPE, TAURANGA, TAUMARUNUI, TAUPU, TE KUITI, TURANGI, WAIHI
 1020 DATA WAIKURU, WAIPIKARAU, WAIROA, WAITARA, WANGANUI, MARKWORTH, WELLINGTON, WHAKATANE, WHANGAREI

1999 REM DISTANCES BETWEEN LOCATIONS

2000 DATA 187,506,126,447,420,514,325,630,426,331,391,366,538,235,423,210,288,279,204,330,147,393,496,515,375
 2010 DATA 454,68,657,381,171,693,313,634,607,701,180,877,613,518,578,553,725,422,610,397,475,466,391,517,334,580
 2020 DATA 683,702,562,641,119,844,488,58,400,236,526,175,831,448,215,436,630,471,393,291,478,301,451,334,445,386
 2030 DATA 365,448,285,98,646,467,574,547,205,677,321,294,363,451,504,300,205,265,240,412,109,297,108,162,153,78
 2040 DATA 204,97,267,370,389,259,328,194,531,195,297,277,418,772,212,20,260,423,309,157,250,272,324,285,168,315
 2050 DATA 220,366,282,70,138,350,231,515,300,336,618
 2060 DATA 626,745,230,296,182,72,182,133,362,174,422,167,284,216,232,391,186,241,428,68,91,488,215,448,591
 2070 DATA 800,623,397,438,552,473,568,254,480,264,453,336,441,302,328,450,460,266,556,561,543,722,168,646
 2080 DATA 955,751,656,716,691,863,568,748,535,613,684,529,655,472,718,821,929,700,779,257,982,626,154
 2090 DATA 231,297,346,264,92,433,207,510,342,351,426,293,549,237,163,350,318,166,698,99,519,801
 2100 DATA 249,442,288,176,229,291,303,264,147,294,199,345,261,91,117,369,250,494,321,315,597
 2110 DATA 254,35,205,184,92,267,43,102,127,47,272,62,313,338,270,123,399,340,270,502
 2120 DATA 263,237,318,292,382,224,388,144,390,362,290,345,532,16,163,459,329,404,562
 2130 DATA 172,219,57,302,78,137,162,82,307,27,200,373,285,100,434,317,305,537
 2140 DATA 341,115,401,250,259,334,201,457,145,108,295,221,74,606,143,427,709
 2150 DATA 226,60,177,82,154,134,116,196,299,318,302,307,303,460,86,406
 2160 DATA 309,135,144,219,92,342,30,223,390,308,115,491,234,312,594
 2170 DATA 270,142,186,166,70,256,382,399,362,436,278,544,96,381
 2180 DATA 117,84,62,259,105,334,353,208,166,356,383,263,459
 2190 DATA 147,52,198,114,217,236,346,225,347,402,168,450
 2200 DATA 146,175,189,364,543,148,250,272,477,240,375
 2210 DATA 250,62,269,288,294,170,398,350,220,501,312,415,463,323,395,215,628,160,381
 2220 DATA 253,350,337,127,461,264,282,564,187,329,182,564,262,385,667
 2230 DATA 548,369,583,449,305,686,164,443,381,388,546,522,217,393,625,725,369,103,570,828,472

***** THE RANGIORA COMPUTER GAMES CLUB ***** by J. M. White

A few months ago in a "Bits & Bytes" I noticed an advertisement for a computer games club in Rangiora. I promptly wrote to the address shown, quoting my Bankcard No. for payment of the \$20.00 joining fee and to cover the monthly bills. About 2 weeks later I recieved my 1st choice (you can give 3 options) which was "REAR GUARD" this game I kept for a couple of weeks, before returning to the club with a further order. This order took a little longer to fill as I didn't give any optional choices.

When you join the club you are given a listing of games for your machine (these include the APPLE, ZX-81, SPECTRUM, TUNNIX, etc.). The list for the ATARI covers about 90-100 games from Energy Czar to Stud Poker to Miner 2049er to Eastern Front and Sub Commander. The rental rates are a bit steep for the 1st week but drop for the following weeks. Games from \$30.00 to 40.00 cost \$4.00 then \$2, games from 50.00 to 60.00 are \$5 then 2.50 etc games \$90.00 and over are \$7.00 then \$4.00 there is also an option to buy. The owner of the club also carries stocks of hardware etc and offers a discount to club members.

The address of the club is-

THE N.Z. COMPUTER GAMES CLUB
 P.O. BOX 93
 RANGIORA
 PH. 6200 RANGIORA.

The committee would like to thank Jeremy White for his contribution to the Newsletter. Also, shown below is an extract from the letter he sent with his "Tiny-Text" article:

....As well as my article could you please include a piece asking members if they could have a PEEK in location 58383 and get the results to me somehow either by calling me at 286518 (after Sept 15th) or Mr. C. LAWS at 285061 it would be much appreciated - this especially applies to those who got their machines outside N.Z.....

(Note: My 800, brought in N.Z., gives 249 at location 58383. KWH)

ATARI USERS' GROUP WELLINGTON, NZ.

PUBLIC SOFTWARE LIBRARY.

LEGEND

EDU-EDUCATIONAL. UTI-UTILITY.
 GAM-GAME. DEM-DEMONSTRATION.

RATING:- *** -VERY GOOD

** -GOOD

* -POOR

BUG -NEED SOME WORK!

UNLESS OTHERWISE STATED ALL 16K MAX

TITLE	TYPE	SOURCE	RATING	TITLE	TYPE	SOURCE	RATING
DISC NO. 1							
CHICKEN	GAME	ANTIC	***.	GOLDMINER	GAME	SOFTSIDE	** .
NUMBER BATTLE	GAME	SOFTSIDE	** .	BREAKOUT BASIC	GAME	LAI	* .
SHOOTING STAR	GAME	COMPUTE	* .	SAUCER LAUNCH	GAME	MICRO	* .
TIMETRAIL	GAME	ACE	** .	ATTACK	GAME	COMPUTE	** .
STARBASE 13	GAME	SOFTSIDE	** .	LUNARLANDER	GAME	SOFTSIDE	* .
CLOSEOUT SALE	GAME	COMPUTE	** .	MARTIAN EXP.	GAME	C&V.GAME	** .
SOLITAIRE	GAME	SOFTSIDE	***.				
DISC NO. 2							
ALIEN INVADERS	GAME	MACE	* .	OIL MINER	GAME	MACE	** .
WORD SCRAMBLE	GAME	SOFTSIDE	* .	SUPERFONT	UTI	COMPUTE	***.
WORDSEARCH	EDU	COMPUTE	** .	CONCENTRATION	EDU	COMPUTE	** .
MOUSE CHICAGO	ADV.	SOFTSIDE	** .	SABOTAGE	GAME	SOFTSIDE	* .
DISC NO. 3							
MASTERGOLF	GAME		* .	MAZESARCH	GAME	COMPUTE	* .
BLOCKADE	GAME	COMPUTE	***.	BOING	GAME	C&V.GAME	** .
STRATOBLAST	GAME		** .	SUPERCHASE	GAME	COMPUTE	** .
PIZZAHOTEL	ADV.	SOFTSIDE	** .	ENGINEER	GAME	C&V.GAME	** .
DOUBLE CANNON	GAME		* .	DRAWING BASIC	????	LAI	* .
CAVE	GAME	COMPUTE	* .	LASER BARRAGE	GAME	COMPUTE	** .
SKI	GAME	COMPUTE	** .				
DISC NO. 4							
JUGGLER	GAME		* .	DUEL	GAME		* .
PMHELP	UTI	ACE	** .	STELLAR DEF.	GAME	ANTIC	* .
TUNDEBIRD	GAME	COMPUTE	** .	WILDSTRAW.	GAME	C&V.GAME	** .
SUBHUNT	GAME	C&V.GAME	SLOW	AIRLOCK	GAME	C&V.GAME	SLOW
DR.WHO	ADV.	C&V.GAME	** .				
DISC NO. 5							
COPYCAT	EDU	?	***.	POKER	GAME	C&V.GAME	** .
PUCKMAN	GAME	C&V.GAME	* .	IMHOTEP	EDU	C&V.GAME	** .
CASINO ROYALE	GAME	C&V.GAME	** .	HAUNTED	GAME	C&V.GAME	BUG!
URANIUM	GAME	C&V.GAME	BUG!	ORCHARD	GAME	C&V.GAME	** .
COLOR 3D	DEM	LOGAN	* .	TAG-2 PLAYER	GAME	COMPUTE	** .
HORSEACE (5)	GAME	COMPUTE	** .				
DISC NO. 6-ACE DISC							
FROG	GAME	ACE	* .	BATS	GAME	ACE	* .
BANKSHOT	GAME	ACE	** .	DOGGIES	GAME	ACE	** .
SLOT MACHINE	GAME	ACE	** .	ROBOT-24K RAM	GAME	ACE	** .
BLACKJACK	GAME	ACE	** .				
DISC NO. 7-ACE DISC							
MERRYCHRISTMAS		GREETING CARD.		GOBBLER	GAME	ACE	** .
BALLOONS	GAME	ACE	** .	GRUBS	GAME	ACE	** .
TIGER	GAME	ACE	** .	EGGS	GAME	ACE	** .
CASTLE HEX	GAME	ACE	** .	TINYTEXT	UTI	ACE	***.
JTERMODEM	MODEM	ACE	???.	GALLERY	????????????		
LUNAR	GAME	ACE	** .	PLUS&ZERO	GAME	ACE	* .
MUNCHERS	GAME	ACE	* .	TRUCK	GAME	HOW TO PLAY??	
ROMANCLOCK	DEM	ACE	* .				

DISC NO. 8

UXB	GAME	COMPUTE **	CATACOMB PHA.	ADV.	SOFTSIDE **
MASTERMAZE	GAME	COMPUTE **	SAFRYLAND	EDU	??? **
AGEGUESSER	EDU	COMPUTE *	SOLAR SYSTEM	DEMO	FELIX&FRIEND.
GUESS ANIMAL	EDU	COMPUTE **	MINOR & MOJOR	MUSIC	COMPUTE *
MUSIC SCALE	EDU	COMPUTE *	LEYTE 32K	GAME	SOFTSIDE **
TITAN 32K	GAME	SOFTSIDE **	SPACE RESCUE	GAME	SOFTSIDE **
DISK NO.9 SMOKEY	24K GAME	SOFTSIDE **			
POKER SQ.24K	GAME	SOFTSIDE **	ATARI BLASTER	GAME	SOFTSIDE **
GAMBLER 24K	GAME	SOFTSIDE? **	DEFENSE	GAME	SOFTSIDE **
STRATEGY STRIKE BUG	????				

DISC NO. 10

DIGIDRAFT	DRAW	MICRO ***.	FLIT IT	GAME	SOFTSIDE **
WATERFALL	DEMO	BYTES **	BULL & COWS---	HOW TO USE IT ?	
HIDDEN MAZE	GAME	COMPUTE **	OLD MACDONALD	EDU	ACE ***.
LETTER & NO.	EDU	COMPUTE *	ONE ON ONE	GAME	COMPUTE **
JUMPING JACK	GAME	COMPUTE *	DEFLECTOR	GAME	COMPUTE *
MATHFUN	EDU	COMPUTE **			

DISC NO. 11

UTILITY DISC---NOT READY YET ????

TOTAL 107 PROGRAMS IN THE LIBRARY

The Australian

science journal Search reports this innovation in the storage and retrieval of information:

"The new device is known as Built-in Orderly Organised Knowledge. Many advantages are claimed over the old-style learning and teaching aids on which most people are brought up nowadays. It has no wires, no electric circuits to break down. Anyone can use BOOK, even children, and it fits comfortably into the hands.

"Each sheet of paper presents the user with an information sequence in the form of symbols, which he absorbs optically for automatic registration on the brain. When one sheet has been assimilated, a flick of the finger turns it over and further information is found on the other side.

"A small accessory, available at trifling extra cost, is the BOOKMARK ('Modular Address Retrieval Component'). This enables the user to pick up his programme where he left off on the previous learning session.

"Altogether the Built-in Orderly Organised Knowledge seems to have great advantages with no drawbacks. We predict a great future for it."

W.A.C.E. MEMBERS SURVEY

Please fill in the following survey and bring it to the next meeting, or return it to the Secretary. Fill in the details where space has been left and also cross-out the alternatives that do not apply. The information will hopefully help us to provide an even better service for the majority of members. Thankyou in advance, KMH

***** PERSONAL DETAILS *****

MEMBER'S NAME: _____
ADDRESS : _____
HOME PHONE NO: _____ WORK PHONE NO: _____

***** EXISTING SYSTEM *****

COMPUTER	: ATARI 400 ATARI 800	MEMORY SIZE	: 16K 32K 48K
TAPE DECK	: NO YES	DISK DRIVE	: NO YES (TYPE?)
PRINTER	: NO YES (TYPE?)	INTERFACE	: NO YES (TYPE?)
JOYSTICKS	: NO YES (HOW MANY?)	PADDLES	: NO YES (HOW MANY?)

***** PROPOSED EXPANSIONS *****

COMPUTER	: ATARI 400 ATARI 800	MEMORY SIZE	: 16K 32K 48K
TAPE DECK	: NO YES	DISK DRIVE	: NO YES (TYPE?)
PRINTER	: NO YES (TYPE?)	INTERFACE	: NO YES (TYPE?)
JOYSTICKS	: NO YES (HOW MANY?)	PADDLES	: NO YES (HOW MANY?)

***** COMPUTER USE *****

MAIN USE	: GAMES EDUCATION PROGRAMMING BUSINESS OTHER (SPECIFY) _____
OTHER USES	: GAMES EDUCATION PROGRAMMING BUSINESS OTHER (SPECIFY) _____
MAIN USER	: MALE FEMALE (AGE?) _____
OTHER USER	: MALE FEMALE (AGE?) _____
OTHER USER	: MALE FEMALE (AGE?) _____
OTHER USER	: MALE FEMALE (AGE?) _____

***** COMMERCIAL SOFTWARE OWNED *****

MAILING LIST | WORD PROCESSOR | MUSIC COMPOSER | PILOT | ASSEMBLER EDITOR | MICROSOFT BASIC
PACMAN | CAVERNS OF MARS | CENTIPEDE | SUPER BREAKOUT | SPACE INVADERS | COMP.CHESS | STAR RAIDERS
MISSILE COMMAND | ASTERIODS | HANGMAN | KINGDOM | BASKETBALL | EURO.C&C. | BLACKJACK | VIDEO EASEL
OTHERS (SPECIFY): _____

***** MANUALS, BOOKS, ETC. *****

ATARI BASIC | BASIC REF. MANUAL | YOUR ATARI COMPUTER | KIDS AND THE ATARI | GAMES FOR THE ATARI
DE RE ATARI | THE ATARI ASSEMBLER | ATARI GAMES AND RECREATION | ATARI PILOT | VISICALC BOOK ATARI
COMPUTE 1ST BOOK | COMPUTE 2ND BOOK | SOUND AND GRAPHICS | DOS REF. MANUAL | INSIDE DOS | MEM.MAP
OTHERS (SPECIFY): _____

***** REGULARLY PURCHASED MAGAZINES *****

COMPUTE | COMPUTER & VIDEO GAMES | CREATIVE COMPUTING | BYTE | MICRO | BITS AND BYTES | PRACT.COMP.
COMPUTING TODAY | YOUR COMPUTER | WHICH MICRO | PERSONAL COMPUTING TODAY | MICRO COMPUTER PRINTOUT
OTHERS (SPECIFY): _____

***** W.A.C.E. MEETINGS *****

VENUE : O.K. | NO (COMMENT): _____
TIME : O.K. | NO (COMMENT): _____
LENGTH : O.K. | NO (COMMENT): _____
GENERAL FORMAT OF MEETING: O.K. | NO (COMMENT/SUGGESTED IMPROVEMENTS): _____

DESIRED TUTORIAL TOPICS : ELEMENTRY BASIC | BASIC | ADVANCED BASIC | ASSEMBLER | MACHINE LANGUAGE
CHARACTER SET MODIFICATION | PAGE FLIPPING | DISPLAY LIST INTERRUPTS | PLAYER MISSILES | SOUNDS
OTHER (SPECIFY): _____

***** CLUB TAPES *****

TAPE PRICE COMMENTS: _____

TAPE LENGTH COMMENTS: _____

CLUB TAPE #1. COMMENTS:

CLUB TAPE #2. COMMENTS: _____

CLUB TAPE #3. COMMENTS: _____

CLUB TAPE #4. COMMENTS: _____

CLUB TAPE #5. COMMENTS: _____

DESIRED CLUB TAPE PROGRAMS: GAMES | EDUCATION | UTILITIES | BUSINESS | GRAPHIC DEMO'S | SOUND DEMO'S
OTHERS (SPECIFY): _____

***** CLUB NEWSLETTER *****

Please rate the following items for appearance in the Newsletter. (0=Un-interesting to 10=A Must!)

SOFTWARE REVIEWS: 0|1|2|3|4|5|6|7|8|9|10| HARDWARE INFO.: 0|1|2|3|4|5|6|7|8|9|10|

THE QUESTIONNAIRE: 011|2|3|4|5|6|7|8|9|10|

MEMBERS ARTICLES: 01112131415161718191101 EDITORIALS : 01112131415161718191101

MEETING REPORTS : 01112131415161718191101

PROG. LISTINGS : 0111213141516171819101 BOOK REVIEWS : 0111213141516171819101

_____ : 011|2|3|4|5|6|7|8|9|10|

_____ : 011213141516171819101

***** PROGRAMMING LANGUAGES *****

***** PROGRAMMING LANGUAGES *****

Please rate your abilities in the following programming languages. (0 = None to 10 = Expert)

BASIC : 011213141516171819101 ASSEMBLER : 011213141516171819101

MACHINE LANGUAGE: 0111213141516171819101 PILOT : 0111213141516171819101

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LOGO      : 0|1|2|3|4|5|6|7|8|9|10|      FORTH      : 0|1|2|3|4|5|6|7|8|9|10|
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PASCAL : 0111213141516171819101

_____ : 0112|3|4|5|6|7|8|9|10|

***** SPECIFIC ATARI BASIC ABILITIES *****

Please rate your abilities in the following areas of ATARI basic. (0 = None to 10 = Expert)

GRAPHICS : 0|1|2|3|4|5|6|7|8|9|10| SOUND (MUSIC) : 0|1|2|3|4|5|6|7|8|9|10|

SOUND (EFFECTS) : 0|1|2|3|4|5|6|7|8|9|10| SCROLLING : 0|1|2|3|4|5|6|7|8|9|10|

PLAYER MISSILES : 0|1|2|3|4|5|6|7|8|9|10|

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DISPLAY LISTS : 0|1|2|3|4|5|6|7|8|9|10|
INTERRUPTS : 0|1|2|3|4|5|6|7|8|9|10|

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TAPE FILES : 0111213141516171819101
DISC FILES : 0111213141516171819101

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STRINGS      : 0|1|2|3|4|5|6|7|8|9|10|
ARRAYS       : 0|1|2|3|4|5|6|7|8|9|10|
```

ANIMATION : 0111213141516171819101

_____ : 011213141516171819101

_____ : 011213141516171819101

***** GENERAL COMMENTS *****

Please make any general comments you wish to concerning the club activities in the space left below.

(NOTE: If your comments will not fit below, or perhaps you wish to submit an article for the club Newsletter, then please attach same to this survey.)

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

W5 25/7

The Atari Supplement

40 CENTS

Highflier's Fall

How Headiness of 1982 Led to 1983's Doldrums For Warner and Atari

Communications Firm Had A Communications Gap; Rivals Were Underrated

Will Video Games Resurge?

25/7/83

By LAURA LANDRO

Staff Reporter of THE WALL STREET JOURNAL

NEW YORK—Last year, Steven J. Ross, the chairman and chief executive of Warner Communications Inc., was bubbling over the highflying success of the company's Atari unit.

And for good reason. Bought in 1976 for \$27 million amid much skepticism on Wall Street, Atari Inc. had grown to control 75% of the home video-game market, and was responsible for half of Warner's \$4 billion in revenues and over 60% of its operating net.

At a lavishly euphoric Las Vegas reception last year, Mr. Ross squired around a beaming Frank Sinatra so that Atari dealers could rub shoulders with his famous friend. The Warner executive seemed to be living up to the embroidered motto on the pillow that adorns his office: "Living Well Is the Best Revenge."

But the party is over. At least for now. Last week, Warner stunned the financial community by reporting that mounting troubles at Atari were responsible for a \$283.4 million second-quarter loss by Warner—the worst in the company's history and triple even the most pessimistic Wall Street forecasts. The market value of the company's shares has plunged 60% from its 1982 high. And over 1,000 Atari employees face the ax as the 55-year-old Mr. Ross tries to restore profits and salvage what is left of morale. "We were arrogant, we made blunders, we threw money at problems," he says.

Lulled by Potential

By all accounts, what happened at Atari was a classic case of inattention to management controls and communication. Lulled by the apparently limitless potential of the video-game business and Atari's early position as industry leader, Mr. Ross rarely conferred with Atari chief executive Raymond Kassar, who was asked to leave three weeks ago. In addition, to achieve the goal of "being the biggest," in Mr. Ross's words, Atari hired "droves of people" as "the men-

tality changed from earnings to sales." And when the competition inevitably emerged, Warner didn't take it seriously, Mr. Ross concedes.

"We shipped \$98 million (in game cartridges) the week before Thanksgiving," Mr. Ross says. "And then a week and a half later, nothing." Retailers canceled Christmas orders "as if someone had brought down an invisible shield."

Atari's troubles also say a great deal about the volatile state of the fiercely competitive game and home-computer industry. With new competitors and products constantly emerging—along with rampant price-cutting—nobody seems able to get a handle on what's going on. "The market changes daily, almost hourly," says a spokeswoman at K mart Corp., a big video-game retailer. And Wall Street investment officials were caught completely off guard by the extent of the Warner loss—as they were last month when rival Texas Instruments Inc. predicted a \$100 million second-quarter loss. (The actual loss was \$119.2 million. See story on page 3.)

Comeback Strategy

Says Richard Simon, an analyst at Goldman, Sachs & Co.: "The way things are now, I have no way of developing an earnings model" for the industry.

"But don't think that because we got messed up, we won't return to profitability and strength," Mr. Ross says. To do that, Mr. Ross plans to add a new layer of vice presidents at the corporate level to deal with specific divisional problems. Atari is cutting back its number of distributors to 40 from 150, and has hired James J. Morgan, 41, away from Philip Morris Inc. to run Atari.

"We'll speak daily," Mr. Ross promises. Says Mr. Morgan, "my job is to sharply focus on what the company really is, determine the viability of existing businesses and look at other sources of profits with an emphasis on diversification and new products."

Whether Warner will succeed or not, of course, remains to be seen. Meanwhile, there is speculation that Warner may now be the target of a hostile takeover bid, one that could unseat Mr. Ross and his management team. Jeffrey Beck, Oppenheimer & Co.'s mergers and acquisitions chief, says the Atari crisis should intensify interest in Warner, which "would be vulnerable." He adds: "I don't think Ross could weather an unfriendly takeover battle."

A Defensive Merger?

Possibly because of that, Mr. Ross conceded in an interview Friday that Warner wouldn't rule out a friendly, defensive merger to lessen its dependence on Atari or to ward off hostile attacks. "It depends on what the other company has to offer," he says. "We will always look at ways of improving the business, whether through joint ventures or through other things that make sense."

At the same time, Mr. Ross says that Warner and its top management would put up a vigorous, united fight against any unfriendly bid. No Warner executive owns more than 5%, including Mr. Ross, who according to proxy material has 428,339 of Warner's 64.5 million shares. "Anyone who would come into this company is unlikely to understand the nature of our businesses," he says. "And if they lost the management

Continued From First Page

that's here, they could get into a lot of trouble."

That assessment isn't shared by everyone. "It's a company that's been run on flair, period," says one chief executive who has examined some of Warner's businesses as potential acquisition candidates. "The attitude from the top seemed to be, 'Do whatever you have to, just bring in profits and you'll be rewarded.'"

Mr. Ross has often been criticized for his laissez-faire, loose management style. He calls Warner a "partnership" and its division heads his "friends." Half the directors are company officials; others are friends such as opera singer Beverly Sills. In line with Warner's show-biz image, the company maintains expensive apartments in New York and a house in Acapulco to entertain actors, other performers and directors. Says one associate: "When the stock was near \$60, nobody complained that the company had style. At around \$20, people start complaining." (Already, a number of shareholder suits are pending, charging Warner with compensating executives too generously and hiding the conditions at Atari.)

Part of Mr. Ross's inability to anticipate the problems at Atari appear to lie in the failure of Warner's four-man "office of the president" to grasp those problems. "Time was too occupied with everyday things," Mr. Ross says. "They didn't have time to meet frequently with me and think about longer-term strategic concerns." The planned new layer of vice presidents would act as liaison between the four top executives and the heads of Warner's divisions.

"I never developed the gut feeling (about Atari) that I had for our other businesses. I wasn't smart enough to see (the problems) coming," Mr. Ross says.

Counting on Morgan

He is counting on Mr. Morgan's marketing experience to pull Atari's products out of the doldrums and put new life into the Atari image. In a few weeks, Atari will roll out two new low-priced computers and in the fall will begin a huge advertising campaign featuring actor Alan Alda as spokesman.

Still, Warner has lowered its sights as to how fast Atari will bounce back. Mr. Ross says only that Warner will operate at a profit in the second half; as recently as two months ago he said the company would post a gain. For now, Mr. Ross says he doesn't foresee any further write-offs or other surprises. "We took the bath" in the second quarter, he says.

But with a planned new line of so-called "smart" telephone products and powerful personal computers designed to compete directly with Apple Computer Inc. and International Business Machines Corp., some industry officials contend Atari is going in too many directions at once. Says a competitor: "If Morgan does anything, he should rein that in. They're just trying to do too much."

For his part, Mr. Morgan talks in terms of rallying the troops, and imbuing the organization with a "zeal for excellence." But that may prove a tough assignment. Under the last year of Mr. Kassar's reign, dozens of executives were fired as the company's troubles began to build. And with the recent announcement of even more layoffs, "people are going through hell," says an official at Activision Inc., a company that makes video-game cartridges for Atari machines.

centrate on their job.

Still Strangers

Moreover, Mr. Morgan accepted the Atari job without meeting the existing Atari management team. "For all anyone knows, he may decide he can't work with those guys, or he may simply want his own guys in there," says one Atari executive. (Until Mr. Morgan shows up in September, Atari is being run by Emanuel Gerard, Warner's co-chief operating officer; John Cavalier, recruited last year from a marketing post at American Can Co.; and Donald Kingsborough, who was rehired after leaving to form his own software company.)

Among other things, Mr. Morgan says he is thinking of consolidating Atari's operations into one single headquarters. He was

shocked on his first visit to California to find the company spread over 49 buildings. Only two executives out of nine who report to the chief executive were housed in the same building with him. Mr. Morgan also says he plans to meet with Atari's top executives for two hours every morning, "not so much that I can talk to them, but so that they can talk to each other."

For all the hue and cry that the video-game market is dead, Mr. Ross and Mr. Morgan say they are convinced by marketing surveys that industrywide video-game cartridge sales will increase 35% this year to 100 million units, and rise to 155 million units next year. Home-computer sales are expected to triple to 4.9 million units this year and rise to 7.5 million units in 1984. "Is that a business?" asks Mr. Ross. "Yes. Did we screw it up in the past? Yes. Will we screw it up in the future? No."

Some Unconvinced

Others aren't convinced. "I don't think we can automatically assume that the problems have been solved," one competitor says. "How can we believe the worst is over? How can a guy they bring in in September have a meaningful impact in time to save them? The next six to eight months will be a critical time in our industry."

And while Warner struggles with Atari, its other businesses are sagging as well. Its movie studio had no strong releases in the second quarter; films such as "The Twilight Zone" and "Superman III" aren't the hits they were expected to be. In the consumer-products group, which includes mail order, cosmetics and publishing, earnings fell 73% in the second quarter. "It's scary to see how Atari is the whole shooting match," says one banker. Agrees Harold Vogel, an analyst at Merrill Lynch, Pierce, Fenner & Smith: "It's a tough road ahead still. Their other lines of business are depressing to look at. I don't see much in the way of growth."

Among other things, Atari is working closely with Warner-Amex, a joint venture of Warner and American Express Co., on the electronic distribution of video games via cable television. Other projects are in the works as well, such as a system whereby its three record companies would send albums into storage devices in home terminals.

But Warner-Amex has huge capital commitments to build franchises in cities like

to post large losses for the fourth consecutive year. Though critically acclaimed, Warner-Amex programming ventures like Music Television (MTV) and Nickelodeon, a children's channel, are losing money, too. Mr. Ross says he's "willing to see our profit-and-loss hit in a significant way to get the long-term growth" he sees in cable.

Some pieces of Warner could attract potential buyers. Its extensive film library, which contains such classics as "Mister Roberts" and "My Fair Lady," is believed to be worth \$400 million to \$500 million, and Warner Bros. television and record libraries are valuable as well. Says one takeover specialist: "We've looked repeatedly at this company. We're looking even closer now."

And some speculate whether Mr. Ross, who has become a rich man through the company's various stock-purchase plans, may simply decide to step down. But he dispels that notion. "This is my baby," he says. "I built it, I have taken it through every change and seen it go up and down." One of his closest associates says, "Steve wouldn't leave. That would be perceived as running, and it's antithetical to his personality."

Donkey Kong Goes to Harvard

TIME, JUNE 6, 1983

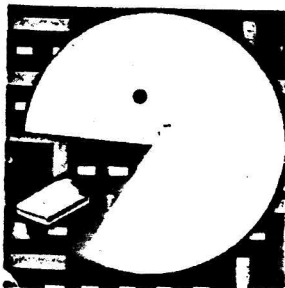
Mothers and fathers of River City! I say watch for the telltale signs of your child's deg-re-day. Does he look like a glassy-eyed zombie? Are her little fingers forever twitching? Are those lunch-money quarters disappearing into the black hole of pleasure? Does he tell you he's going to zap you right into hyperspace? If so, friends, ya got trouble, right here in River City. Trouble with a capital T, and that rhymes with V, and that stands for video games!

Ever since the first Pong was pinged, video games have been accused of increasing crime and school absenteeism, decreasing learning and concentration, and causing a mysterious ailment called video wrist. But according to a conference sponsored last week by the Harvard Graduate School of Education, the mothers and fathers of River City may breathe easier. Researchers and scientists suggested that video games may turn out to be one of the most powerful teaching tools ever devised. "Many view video games with alarm," observed David Perkins, a research director at the school, "but in the eye of some educators gleams the hope and vision of what might be called educational heaven."

Underwritten in part with a \$40,000 grant from Atari, "Video Games and Human Development: A Research Agenda for the '80s" represented one of the first attempts to organize the na-



Donkey Kong abhors academe



Pac-Man minus mortarboard

the subject so far. Typical of the early studies are interviews with nearly 1,000 young people in Los Angeles video arcades, undertaken by David Brooks, an instructor at the University of Southern California. Brooks told the Harvard meeting that most of the youngsters were average or above average students and that they rarely played hooky from school.

Far from being corrupting dens of iniquity, the arcades, Brooks concluded, were places for young people to meet and talk. Said he: "They're like a bunch of golfers talking about what happened at the ninth hole." Fears that drugs and liquor are commonplace were off target, Brooks reported. One cannot play well when drunk or high, he noted, and where video games are concerned, play-

ing well is the adolescent's best revenge.

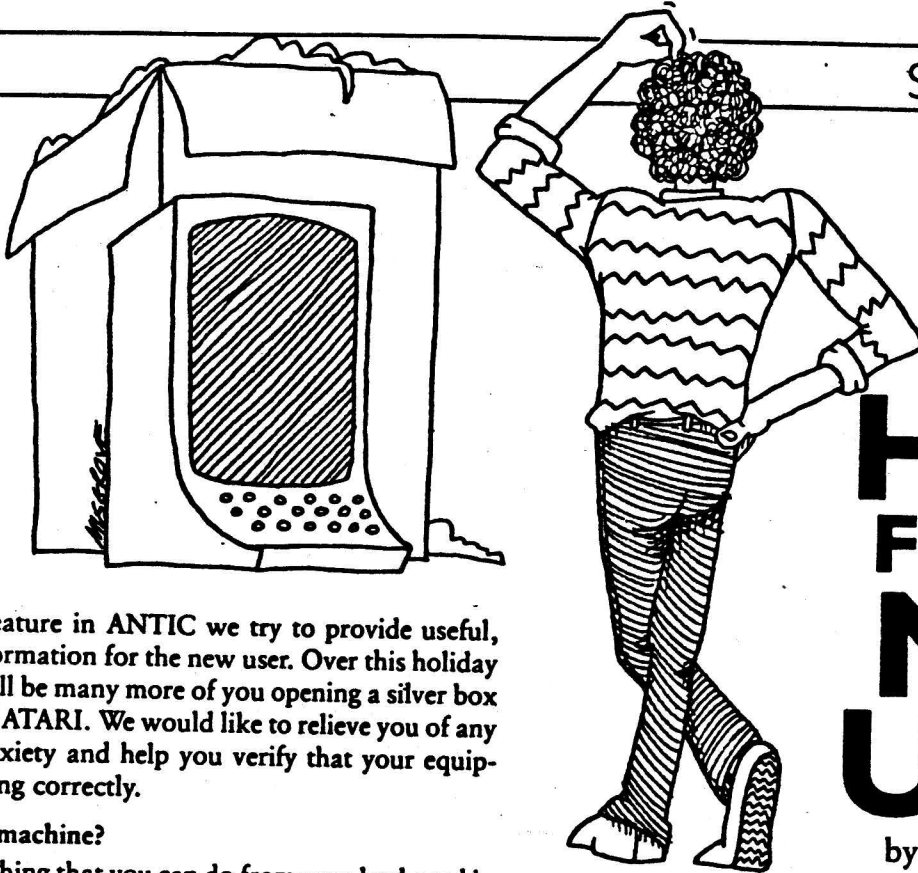
Seeking to explain the captivating appeal of the games, Jerry Chaffin, professor of special education at the University of Kansas, noted that they involve extraordinarily high response rates, some requiring upwards of 100 a minute. This makes them intrinsically motivating, according to Chaffin, and allows the player to react, learn and improve.

There was general agreement that most of today's games were pervaded by violent themes. Yet these games, typically

complex, with many things happening simultaneously, foster inductive reasoning, argued Patricia Greenfield, a professor of psychology at U.C.L.A. She maintained that a child who can manipulate an array of buttons to gauge the pull of gravity and the thrust of a spaceship, all the while evading invaders and firing off missiles, is using complex cognitive skills. This is what she called "parallel processing," the ability to evaluate many variables simultaneously. "Video games are like life," she said. "You must learn by observation, make judgments and rapid decisions."

The "research agenda for the '80s," said the conference's guiding spirit, Ina-beth Miller, director of the Gutman Library at Harvard's Graduate School of Education, was to harness the dynamic stimulation of the games to foster learning without drudgery. Sylvia Weir, a research associate at M.I.T., showed a film of an educational video game in which the user experiences the principles of Newtonian physics. One scientist indicated that the games are already serving those hardest to educate. Stephen Leff, of the Harvard Medical School, reported preliminary findings that video games' "massive capacity for eliciting attention" helped stimulate the chronically mentally ill.

Alan Kay, chief scientist of Atari, closed the conference with a vision of the video-game joy stick as a magic wand capable of creating new worlds. The video game, he said, aligned with the computer, was "a new kind of kinetic art," a medium that will allow the user to explore his own imagination. "Games are the most important thing ever invented," he noted, "because they allow us to control and amp"



HELP FOR THE NEW USER

by JAMES CAPPARELL

As a regular feature in ANTIC we try to provide useful, jargon-free information for the new user. Over this holiday season there will be many more of you opening a silver box to the world of ATARI. We would like to relieve you of any unnecessary anxiety and help you verify that your equipment is operating correctly.

Can I hurt my machine?

No, there is nothing that you can do from your keyboard in normal operation that will harm your ATARI. Feel free to press any key in any order. Experiment, try it, learn by example, and by trial and error. One note of warning, always save a copy of your program on cassette or disk prior to experimenting. This way you'll have a copy to reload should the experiment fail, or if someone kicks the plug out of the socket. Keep food and drink away from your equipment, and disks and tapes away from magnetic fields.

What does 32K mean?

In computing circles terms like 16K or 32K are frequently heard. Numbers with the suffix K are used to refer to the amount of memory available in your machine. K is an engineering term and refers to the number 1000. So, 32K would mean that 32,000 characters of memory are available. Most ATARIs come factory equipped with 16K. Both the ATARI 400 and 800 can be expanded to 48K, or 48,000 characters of information. Consult your local dealer about memory expansion products.

How can I be sure that all my memory is there?

To verify that your installed memory is being recognized, type the command `PRINT FRE(0)`, and press [RETURN].

With the BASIC cartridge installed you should read:

13326 (if 16K)

29710 (if 32K)

37902 (if 48K)

How many characters will fit on the screen?

A maximum of 40 text characters per line, by 24 lines, can be displayed on your TV screen. In normal operation only

38 characters are allowed. This can be changed by typing the command `POKE 82,0` (press [RETURN]). This effectively moves the left margin two characters left, giving you the maximum of 40 characters. Press [SYSTEM RESET] to restore margins.

How long a line will BASIC accept?

BASIC can receive up to 120 characters per command line (three full 40-character lines). A warning buzzer sounds when 113 characters are typed. If you type more than the maximum, the excess characters are ignored.

Is there an easier or faster method of entering BASIC?

Yes, use abbreviations wherever possible (look at Appendix A of your BASIC Reference Manual). Using abbreviations will save typing time. For example use N. instead of NEXT or C. instead of COLOR. The BASIC cartridge will expand these abbreviations for you. It is also legal to eliminate spaces wherever possible, once again BASIC will insert spaces for you. For example, `110REM` is okay.

What color should my screen be when I turn on my ATARI?

Your screen should be blue when first turned on. This is one of 128 color possibilities available. There are 16 colors and eight hues on very 400/800. Look at page 50 of the BASIC reference manual for the color-range description.

What is Memo Pad Mode?

The ATARI will respond with this statement whenever you turn power on without either a BASIC cartridge installed or the disk-system DOS installed. You can display characters on the screen, but that's about all.

continued on next page

What does screen editing mean?

This refers to the ability to move the white cursor around the screen by pressing [CTRL] (the control key) and the up/down or left/right arrows simultaneously. Additionally, errors can be corrected and lines inserted without the necessity of retyping entire lines. Look at Chapter Three of BASIC Reference Manual for more edit features. They're very powerful and can save you much time.

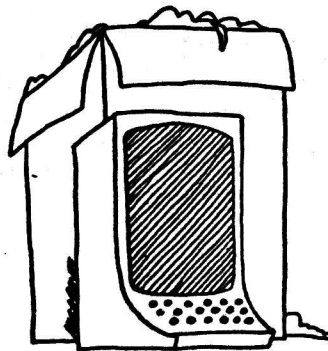
Why does my screen change colors when I leave it for a while?

This is called Attract Mode. If there has been no input from your keyboard in the previous nine minutes, the colors begin to change on your television. This occurs to protect the color phosphors of your picture tube. Just press any key and the colors will return to normal for at least nine minutes more.

How can I be sure my equipment is operating properly?

Modern electronic equipment is extremely reliable. In almost all cases your computer either will fail in the first 50 hours of use, or continue operating for the next five years. Whenever you power-on your computer with the BASIC

cartridge installed, the friendly message READY should appear in the upper-left corner of the screen. Almost always computer failure will be total. It will either run properly or it won't run at all. If you should develop trouble, read the instructions and recheck your power and connectors. Begin to eliminate probable causes one by one. Be methodical! If your cassette doesn't work, try it on your friend's computer. Try to isolate the problem. You can save yourself unneeded trips to the repair center by thinking through the problem, trying and retrying again. These techniques work for professionals and they'll work for you. **A**



New Scientist 5 May 1983

299

DAVID HUME in 1757 wrote "There is a universal tendency among mankind to conceive all beings like themselves and transfer to every object those qualities with which they are intimately acquainted and of which they are intimately conscious."

Neil Frude's book brings together a wide range of stimulating ideas related to the association of human attributes to non-human objects. For instance, he examines the development of dolls from 3000 BC, via the 18th century mechanical automata, through to the possible future delights (or horrors) of pornographic robots which entertain their human companions in ways that might well be measured in kilocuddles. He also highlights the well-known dangers of people becoming addicted to computers (*New Scientist*, 24 February, p 532).

However it would be misleading simply to concentrate on the more provocative statements in Dr Frude's book. The text is divided into three sections and each has something to offer the reader.

"Future friends", the first part, describes the history of computers and the way that

Anthropomorphism and automata

The intimate machine
by Neil Frude, *Century*, pp 190, £4.95

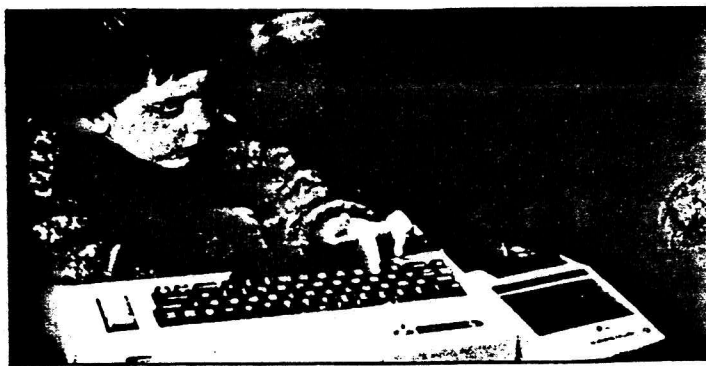
Chris Reynolds

they are currently developing. This is an extremely readable account aimed at those with no computing knowledge. The only serious flaw is his use of BASIC to provide examples of how a programming language works. Modern high-level languages are concerned with the symbolic manipulation of information, and meaningless data names and commands detract from the otherwise easy flow of text.

Frude starts the second

section, "Encountering the inanimate", by examining the various types of interaction that people and computers can have. On the negative side, there is addictive programming and game playing while, on the positive side, conversational systems and teaching aids.

In one evocative passage, during a discussion of animism and the development of automata, he refers to a six-year-old girl showing her doll how a



When does a piece of metal become animated?

computer works and explaining that it is a friend. He suggests that there is something a little unnerving about a young child assuring a piece of moulded plastic that a metal machine is a playmate.

The final part "Towards the intimate machine", discusses the possibility of developing computer systems with personalities and the ability to adjust to the need of the human user.

The book concludes with a review of the possible impact of more intimate computers, for good or ill, in various areas of human life. These include education, politics, law and order, trade, leisure, religion and sex. If I have any criticisms of this section it is that it underestimates the difficulties of writing software and ignores the influence the historical development of computing has on the acceptance of new ideas (what Seymour Papert calls the QWERTY phenomenon).

The Intimate Machine raises many issues concerning the social impact of computers in an invigorating and highly readable manner. It also provides an informative popular account of current research in man-computer systems. I wholeheartedly recommend it. **□**

REVIEW

ATARI

WELLINGTON
NEW ZEALAND

SUBMARINE COMMANDER

Reviewed by Rick Koenig



by D. Lock (Thorn EMI Video Programming Ent., 1370 Avenue of the Americas, New York, NY 10019). System requirements: 16K Atari® 400/800/1200 with one joystick. Retail price: \$49.95.

The scene: You are the commanding officer of a submarine on combat patrol in the Mediterranean. You are operating independently, searching for an enemy convoy reported in the area. While on the surface, charging your batteries, a lookout suddenly reports a ship on the horizon. You sound the alarm for Battle Stations, and order the ship to dive immediately to periscope depth. Sonar reports a contact, and you alter course to port, closing on the target. Is it an enemy tanker, or a destroyer out to end your mission and your career?

Thorn EMI's *Submarine Commander* is for anyone who ever wanted a chance to command a submarine in combat. It is far more detailed and challenging than most submarine games, which provide only a periscope-view and are merely adaptations of a "shooting gallery." This game has much more depth (no pun intended) and room for planning your attacks, strategically and tactically.

The game is a ROM cartridge (not as rugged as Atari-made cartridges), and uses a joystick and the keyboard. It comes with a brief, but thorough, instruction booklet. The higher skill levels (there are nine) are quite challenging, and you will not easily master this game.

The basic status information available on all displays includes: an indicator showing the position of the diving planes and rudder, a compass indicating the current course, the number of torpedoes

left, the amount of diesel fuel remaining, the battery charge, the speed in knots, a depth gauge, a display showing the depth beneath the keel, a clock, and an air supply gauge. Damage indicators show the effect of depth charges or surface hits on your hull, instruments, control surfaces, and engines, each on a scale of zero to nine.

You select the three primary displays with a single key. The map (M) is a reasonably good depiction of the Mediterranean Sea, showing the locations of the sub and the convoys. The commander must set a course and speed to intercept the convoys as they move along randomly-chosen courses.

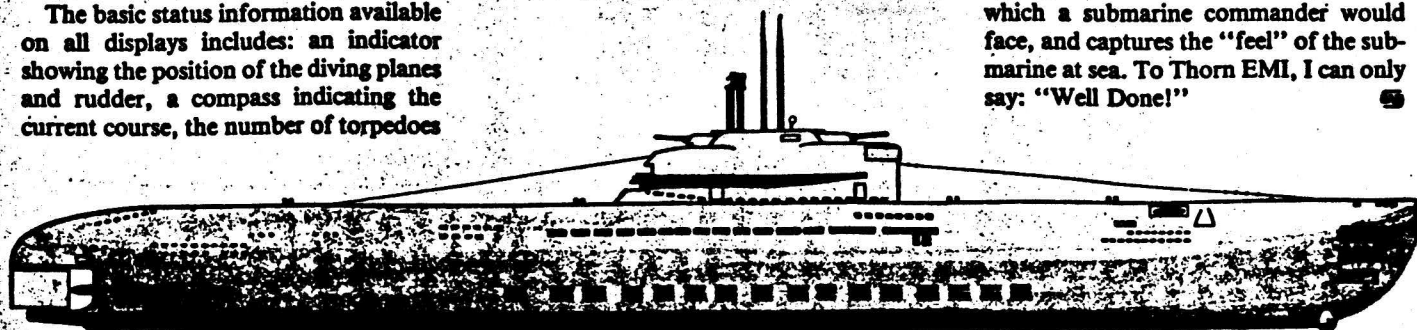
The sonar display (S) gives the approximate range and bearing of enemy ships within its range, and sonar contact is not automatic. This display includes a hydrophone chart that can find ships outside the range of sonar.

The periscope display (P) is excellent. You can use the periscope only above 50 feet, and occasional clouds float by in the sky, enhancing the effect. There are four types of ships, and at long ranges, it is hard to tell whether you are approaching a freighter or a destroyer. As you close on the target, the profile of the ship gets larger and clearer. Lining up a good torpedo shot on a moving ship isn't easy. If you get a hit, however, it will show as an explosion or splash against the hull (another nice touch), and you can watch the ship go down.

The game makes good use of sound as well as graphics. Changing the engine speed will generate an engine sound. The sonar "pings" fade gradually, with a distinct "pip" when a contact is found, and the torpedoes "whoosh" toward their mark. The gunnery and depth charge attacks are unnerving, as you practically feel the jolt of the explosions (the display jiggles with each impact). As soon as the submarine comes within range of a convoy, a General Quarters alarm sounds. The game's designers obviously wanted to give the most realistic effects possible, both visually and aurally, and in this respect, they were highly successful.

Other keys allow you to crash-dive, blow ballast tanks, neutralize buoyancy, pause and abort. The game ends when you sink all convoys, or if you exhaust your air while submerged, run out of fuel, or sustain enough hull damage to meet Davy Jones. Your score is a function of tonnage sunk, the amount of damage sustained, fuel used, time, and torpedoes expended.

This game excels in overall design and in the integration of the many related functions. It features good graphics and superior sound effects. With a few minor concessions to playability, this game is one of the finest real-time simulations I have ever seen. To be a successful commander, you must exercise far more thought and planning than the run-and-shoot tactics common to arcade games. It recreates the problems which a submarine commander would face, and captures the "feel" of the submarine at sea. To Thorn EMI, I can only say: "Well Done!"



PERSONAL COMPUTERS

A Future Role for the Videodisk

By ERIK SANDBERG-DIMENT

Chances are the personal computer will become an essential facet of future home life — but not necessarily in the way many computer buffs currently envision it. The computer could have powerful consequences for doing business or school work at home, of course. Financial programs like those involving the stock and commodity markets are apt to become even bigger hits than they are now, especially with serious investors, who can take advantage of the many time-saving benefits such software offers.

Word processing certainly seems to offer an exciting opportunity. But the truth is that the vast majority of the population probably haven't written more than a dozen letters a year since the installation of their telephones. Word processing for personal use — students excepted — really doesn't offer those people much.

As to the handy software designed to sort and store your recipes, would you really spend the weeks needed to enter the data from, say, "Joy of Cooking" into your computer?

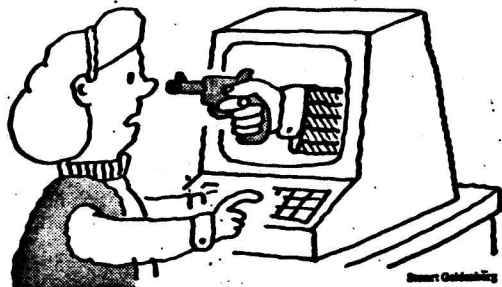
Checkbook balancing, budgeting and other such computerized family-finance fiascoes will also no doubt be shelved by most people once their novelty wears off.

So what possible use is there for a home computer if you don't do work at home and don't write and aren't a student? Computer games as they become increasingly sophisticated may save the home computer from becoming an electronic lemon for those who have no other reasonable use for them. The home computer may be destined to become the nerve center of the electronic entertainment room.

It can do that especially well, it seems to me, if it joins up with another heralded consumer commodity that until recently appeared headed toward the great discard yard already inhabited by radio scanners and CB radios. I'm speaking now of the videodisk recorder. The recorder, instead of being used for video pictures, could someday soon be employed to store digital computer data and — what else? — play games.

This marriage of computer and video came to me recently in a flight of fancy. Then I was startled to learn that the concept has gone well beyond fantasy among researchers who are developing working systems, albeit crude ones.

Video cassette recorders, or VCR's,



have more or less trampled videodisks to death in the marketplace, for one simple reason. You can copy programs off your television onto the blank tapes. You cannot do that with videodisks. Yet the very fact that copies cannot readily be made from a videodisk contributes a great deal to its potential popularity with software firms, which are plagued at the moment by pirates making illegal copies.

ANOTHER advantage videodisks have over video tapes for software is quick memory retrieval. Called upon to use information at the beginning, then at the end, then again at the beginning of a series of data, a computer using tape must wait while the tape is spooled back and forth in a very time-consuming process. With videodisks it is possible to pick up information quickly from any part of the disk in any sequence.

The amount of information a single videodisk can hold is truly staggering. A videodisk can store two gigabytes, or a total of four gigabytes, on a side, for a total of four billion characters. This is equivalent to the storage capacity of roughly 5,000 of those familiar little double-density floppy disks standard with today's personal computers, or the equivalent of 500,000 pages of text.

But because videodisks were originally designed to hold images, the real breakthrough in the permutation of the personal computer and the videodisk lies in the visual realm. A demonstration of the image-handling terminal resulting from their joiner can be seen at Disney's Epcot Center in Florida. The display uses a touch screen to carry the operator along. Touch one of the selections listed on the video screen, and the appropriate images are called up in any sequence you de-

sire. At Epcot, you can even create your own roller coaster on screen, with you yourself controlling the course of the visual ride.

A more complex coupling of video images and actions in the real world has been developed by Dr. Myron Krueger of the University of Connecticut and is chronicled in his book "Artificial Reality." Using several high-speed computers, he has created a playful graphic creature that darts around your image on the video screen, at times hiding behind your back and responding to all your movements as picked up by the computer system via a video camera.

Take this process a few steps further and you have the personal computer game room of the future. You stand surrounded by four small video cameras hooked up to feed their received images to your computer. A video recorder with a disk of "Star Raiders," "Murder in the Mansion" or whichever other game you select is also connected to the computer. As the game, say "Murder in the Mansion," begins, the image of an old Tudor house on a hill appears on the video projection screen, occupying the entire wall opposite you. A camera switches on as you start walking in place. Suddenly you appear walking on the road leading to the mansion.

The computer has taken the camera's image of you, masked out the background, overlaid it onto the frames from the disk and synchronized two representations so that they are one. You notice a wallet dropped on the ground. Stooping, you grasp at the floor; your video doppelgänger reaches into the grass. As you see yourself touch the wallet, you pick it up. A shot rings out in the mansion. You hurry on up the road, no longer playing a game, but living it.

Radiation Hazard?

A question we are frequently asked is, "What are the hazards from radiation?" (particularly when a microcomputer user is apt to be sitting right next to a monitor for long periods of time). The answer is an almost unequivocal, "No hazard whatsoever." In fact, if by "monitors" we are referring to products manufactured since January 1970, it is possible to say that there is no radiation hazard.

The only instances in which users need to worry about a possible radiation hazard are instances in which they have resurrected an old (pre-1970) color T.V. to serve as a computer monitor. We thought this such an unlikely possibility that it was probably not worth reporting on, until we were told by some school media directors that some schools have been using old color T.V.'s purchased during the hey-day of federal funding back in the mid-1960's, stored away in basement corners for the last decade.

In case your school (or any you know of) is doing this, we want to alert you to the potential hazard of using older color T.V.'s as microcomputer displays. For more detailed information, we refer you to the New England Journal of Medicine, Vol. 307, No. 14 from which we quote in part:

"Although it is generally agreed that the video display terminal is not a major source of radiation for the user, field surveys of older color T.V. sets have concluded that 1.33 to 16.2% of receivers at some surface point exceed 0.5 mR per hour which is the limit for emission set by the FDA Bureau of Radiologic Health. From 1960 until January 1970 when emission standards for color T.V. sets were adopted, 25,000,000 sets were produced. Since almost all of these sets were manufactured in the late 1960's and the average life of a tube type T.V. is 11 years, many of these receivers were still in operation.

Our experts suggest that youngsters using older color T.V.'s for display screens may be at risk for radiation exposure far in excess of the National Council for Radiation Protection and Measurements recommendation of 100 mRem per year for persons under 18 years of age. In order to decrease the possibility of excessive radiation exposure, we suggest that only newer color T.V. receivers (those manufactured after January 15, 1970) be used as display elements for computer functions."



Chips with everything

By Lucy Hodges *Education correspondent*

In schools all over the country, children as young as five are learning to use the microcomputer, a sophisticated piece of equipment with the capacity to produce social and economic change of the scale brought about by the first industrial revolution. But the introduction of this electronic blackboard is being hindered by the lack of agreement over almost every aspect of policy.

The new equipment, based on the microchip, is relatively cheap and the government is actively promoting computer education through a variety of schemes. In no area, however, starting with the most basic, is there unanimity. There is no national agreement on what the micro should be used for in schools: should children simply be taught "computer literacy", or should the micros be seen primarily as teaching aids? There is a lack of properly trained teachers (and disagreement over how they should be trained) and a shortage of software programs (the sets of instructions for the computer to follow); there are also conflicting views about the choice of a model most suitable for schoolroom use.

This lack of central direction is not surprising in a country which prides itself on its highly devolved education system, where what is taught and how is traditionally left to the individual teacher. Even so, by the end of the summer the average British secondary school will have three microcomputers, the result of two government initiatives, a programme of education and an equipment-supply scheme, conceived separately (which itself served to add confusion) but now linked.

The first, begun by the Department of Education and Science (DES) in 1980 and called the Microelectronics Education Programme (MEP), was set up to develop software programs, to train teachers, and to coordinate and publicize its efforts. Originally it was planned as a five-year exercise costing £12m. But the general election of 1979 intervened and the programme was

held up for a year, eventually to reemerge as a £9.5m scheme run over four years. It has now been extended until 1986 and supplementary allocations have led to estimates that more than £20m will have been spent.

The other initiative, launched with a fanfare by the Prime Minister in the summer of 1981, was the Department of Industry's Micros in Schools scheme. The brainchild of Kenneth Baker, Minister for Information Technology, its intention is to get a micro into every school. (The DoI is now toying with the idea of putting a robot into every school.)

All schools have been offered a choice of a limited number of British computers. They are given one of those so long as they find half the cost (which means head teachers are having to resort to the well-tried fundraising techniques of sales of work and voluntary contributions from parents) and so long as the local authority concerned puts on training for teachers. In the case of secondary schools this amounts to four days' training; in that of primaries, two days.

The secondary school equipment scheme, which ran from mid-1981 to the end of 1982, had a phenomenal response: a total of 6,400 micros went into the schools, costing the Department of Industry £3.5m.

The scheme was extended last autumn to include primaries, which have been offered a somewhat different range of equipment. If all primaries seize the opportunity, a total of £7-£10m will be spent.

The sums of money involved seem insignificant when one compares the British initiatives with those of the French, the only other nation to have implemented a national programme. Starting well before Britain, France has adopted a different, and arguably more effective, approach by concentrating money, equipment and training in fewer schools over a longer period.

Between 1971 and 1976, 58 French lycées received a time-shared mini-computer of French manufacture. 500 teachers were trained for a full year

course. The programme was for pupils aged 15 to 18 and a total of £10m was spent. Then in 1978 "Operation 10,000 micros" was launched, to be implemented over six years and to equip each secondary school with eight computers.

There are two kinds of training courses for teachers in France. One lasts a year, after which teachers go back to their schools and pass on their knowledge to their colleagues; the other offers three-day courses. In 1982 France spent almost £9m on equipment and training and a further £1.5m on developing programs.

Although Britain is way ahead of most other countries, its initiative is

thinly spread compared with France's.

Mr Tony Wilshaw, a principal lecturer at Ilkley College, Yorkshire, commented: "One micro shared between 1,500 pupils in a comprehensive is spreading the jam a bit thin, and averages about three-quarters of an hour per year for each pupil."

There is also concern in this country about the kind of equipment now going into schools - whether the DoI chose the right manufacturers, whether there should not have been more standardization and whether the machines were sophisticated enough.

Serious teething problems have been encountered with Acorn's BBC Micro, which is proving to be the most popular machine, and some teachers wonder whether micros might go the way of language laboratories - broken down and unused because of the difficulty and cost of maintenance.

But perhaps the biggest question concerns the fact that, in keeping with British educational philosophy, it has been left to individual schools to decide how they use the micros. The glossy brochure which accompanied the DoI's Micros in Schools scheme was confused about objectives. It talked at the same time about the need for more programmers, the need for all children to have "hands on" experience and the use of micros as a teaching aid.

Arguably, the micro should cover all these things but, because the government has given no guidance on priorities, schools can use their machines merely to supplement the teaching of computer studies to a select group of fourth and fifth-year pupils.

Kenneth Baker's view is clear. "All children as they leave school should have skills in electronic keyboard techniques so that they can operate the electronic gadgetry of this revolution, since it is going to have such a dominating effect upon their lives," he said in a speech last month.

Most computer educationists would go further. They see the subject as having three purposes: to teach children how to live with the new technology; to teach them how to use it and what its potential is; and to use the equipment as an educational aid.

They want children to be taught all the different operations of which the micro is capable and how to put these operations together - for example, to construct a climatic or historical model and investigate what might happen given different variables.

THE ERA OF HOME COMPUTERS

Sam Fiddy reports on the effects of home computers and the education of young children — a subject she raised at the Educational Computing Conference.

A PRIMARY SCHOOL TEACHER borrowed a BBC computer for his class. He had it a week. By the end of that time, five parents had ordered similar systems for their children's use at home. At a neighbouring school, one of the governors is also a computer supplier. He offered to lend a couple of Dragons to the school for several weeks before Christmas. The headmaster, anticipating how the parents would react, politely but firmly refused the offer.

Other similar stories are easy to find. Microcomputers are going into schools and microcomputers are going into homes. There is a growing feeling among parents that having a computer could bring educational advantage to their children.

The increasing availability of home computers for educational purposes must have an effect on schools. There have always been wide individual differences between young children coming into school. Now, there is a new dimension. Some will come into school with no experience of computers. Others will come in with considerable experience, for better or worse, of using computers in their homes.

Parents are already approaching teachers for advice. At present, their questions tend to be naive. They ask for guidance on the choice of hardware. What they really need is guidance on the educational role of computers.

It is said that a computer can make a good teacher better and a bad teacher infinitely worse. The same is true of parents, hoping to help their children with a computer. Primary school teachers are familiar with the pressures imposed by well-meaning ambitious parents who try to push their children on faster and higher through structured maths and reading schemes without providing any breadth and enrichment.

The increase in home computers for educational use will affect teachers in various ways. Obviously, what affects children and their environment should influence the approach of the teacher. But it is not just a matter of educational theory or philosophy. There are practical, economic implications.

The home market is much larger than the school market. Mass production can reduce the price of a commodity. It may be that the only commercially produced software that will be cheap enough for primary schools to afford will be software that has been produced for use at home. The best way to get some of the software teachers really want may be through persuading parents to demand that kind of software for their own children to use at home. However, there are important differences between using a computer for education at home and using it in school.

At school, the computer is a bottle-neck. There are many children competing to use it. A home computer may be under far less pressure. Comparatively trivial programs, and programs with very long run times, may work well at home, but cause problems in school.

Adult involvement will also be different. In school, the adult in charge is professionally concerned with education. It can be assumed

child's behaviour at the computer in some way. The adult will also be responding simultaneously to the demands of many other children.

At home, more extreme conditions are likely. The child may have the full attention of one adult for a considerable period of time. At the other extreme, the child may have to manage completely alone, while adults are elsewhere or preoccupied. Distractions, or help, may also be provided by friends or siblings. There will be no teacher around to rescue the child from an inappropriate, boring or frustrating task.

Parents buying the programs may have little or no idea about education, or may have very set ideas based on their own successes or failures at school. Drill-and-practice programs are already being provided for them to buy, whether teachers approve or not. Other styles of programs are also being produced, including some which attempt not only to teach the child, but also suggest to the parent ways to help to teach the child.

There are various possibilities that teachers, in the not too distant future, may have to cope with. Some children may come into school having completed work on their home computer that the teacher would otherwise have given them in school. Others may come to school having worked on their home computer at 'educational' programs that are contrary to the class teacher's approach — some maths drills, for instance. Other children may come in without computer experience. They may be from families with strongly negative attitudes to computers. We could yet see remedial education in technology for infants.

The pattern of the future is being set now. Classrooms are sometimes described as learning environments. Increasingly, the learning environment will include microcomputers, the same microcomputers that may be in use at home, and the same microcomputers that can be linked up with distant powerful computers.

Children may have access to educational experiences that people have not known before. This may be at home or at school (or at both, or at neither). Educational home computing will develop in one form or another, and must affect what goes on in school.

It is not a matter of initiating change. Change will happen. It is already happening. Computers are going into homes. Parents are trying to buy education for their children via computers. There is a demand and suppliers will fill it. What teachers have to do is decide how they are going to respond to these changes, and how they intend to influence them. E

As John Sherwood, director of inner London's computing centre, put it: "It's our intention to enable all children to understand what the computer can do. We don't see it as a mechanical blackboard. There is no point in spending large sums of money doing something that a teacher could do with chalk."

Physics programs have been developed that help children to visualize what is happening to the molecules in gases, liquids and solids as temperature and pressure are changed. Geography students can use computer graphics to study population growth, and a program on the Russian Revolution prepared for fourth-year pupils at Swayne School, Rayleigh, Essex, enables students to analyse the decisions facing key individuals in 1917.

For primary school children very simple introductory programs have been produced asking such questions as: "Are you a boy or a girl?", "Do you have a bicycle?", "Do you have a pet?" Up to 30 children can key in their replies in turn and then ask other questions.

Experts are particularly concerned that the computer should be used imaginatively, not simply for what is known in America as "drill and practice". But because educational change tends to be slow and patchy, and because of the speed of the micro's development, it will depend largely on enthusiastic individual teachers how or even whether children benefit from the computers.

Richard Fothergill, a former teacher and director of the Microelectronics Education Programme, believes children will benefit more from the committed teacher than from central direction. "It's right to drop the micro into schools and to see how it fits in where there's a keen teacher," he says. "The equipment scheme has been a tremendous impetus to development."

But Derek Esterson, inner London's inspector for computers who resigned in frustration from MEP's management advisory committee, says: "We're putting the cart before the horse. If we don't have adequately trained teachers and a sensible appreciation of the potential of the equipment, it could just become a toy for playing Space Invaders on a wet Friday afternoon."

DeLoy Graham is working on a Master's Project dealing with using microcomputers in home education. He will appreciate hearing from anyone who has experiences, successful or unsuccessful, in teaching with a computer. Useful material might include descriptions of such experiences, names of favorite programs, and sketches of families who are finding computers effective in strengthening skills learned at school, as well as in teaching new material. Please write to him at 475 Lindale Drive #77, Springfield OR 97477.

If you have a special project or a problem you can't solve let us know and we'll try to find the answer or the right contact for you.

Bob Browning is taking over the task of handling the correspondence for ERACE. All further letters and questions about ERACE or educational material should be addressed to him at 90 W. Myoak Dr., Eugene Ore. 97404.

ACE Jm 683

PERSONAL COMPUTERS

Game Focuses on Computer Basics

NYT 4/7/83

By ERIK SANDBERG-DIMENT

A NEW program from The Learning Company — Rocky's Boots, written by Warren Robinett and Leslie Grimm — promises to become another software classic in the personal computing field, joining such stalwarts as Microsoft's Flight Simulator and Software Arts's Visicalc. Using the computer's unique pedagogical potential, Rocky's Boots is devoted to that most appropriate of tasks, teaching the basics of computers themselves.

It deals, not with the programming language Basic, nor, for that matter, with any of what could by now be considered the more ordinary facets of software, but with the arcane-appearing inner workings of the machines themselves.

Someone new to computing is apt to find the fundamental jargon of the process — terms like "floppy disk," "ROM" and "Control C" — enough to induce at least a mild case of computerphobia. Imagine, then, how that same novitiate feels when confronted with such elements of computer logic as and-gates, or-gates and not-gates, in all their stark schematic configurations. They are enough to send almost anyone scurrying off to the beach with a thick, cheap escape novel.

Yet once you start playing Rocky's Boots, it's pretty hard to stop. The program is sold as a game, for 7-year-olds and up, but there's much more to it than there is to the popular shoot-'em-up arcade-type games. In fact, there's much more to it than there is to most of the games sold as "educational." Rocky's Boots is an electronic Erector set of the mind that leaves the player surprisingly well-grounded in the basic logic concepts underpinning today's computers.

Remembering my own fascinating but, at the same time, intimidating introduction to logic and Boolean algebra — both topics, I might add, have long since vanished into the cobwebs of my mind — I was frankly amazed to see Tanya, 9 years old, and Genevieve, 12, begin to conceptualize such complex problems as "if A, then B or C, depending on the state of D." I don't mean to imply that Rocky's Boots is a complete logic course in itself. It couldn't be, since the program comes on a single floppy disk. But it does provide an unexpectedly sound foundation for a short course in organized sequential reasoning.

The early sections of the program are rather slow. The first one demonstrates how to move a cursor, in this case a large orange one, either through the use of the keyboard or



Stuart Goldenberg

with a joy stick. (Everyone in my family prefers a joy stick to the keyboard, by the way. In particular, they'll choose a self-centering one like that of TC Products.)

The second section is on building machines. It covers the rudiments of connecting wires, sensors, on/off switches, clocks, noise-making clackers and so on in order to produce a functional electronic device. As you guide the cursor from "room" to "room" on the video screen, you are shown how to use it to pick up a component, connect it to another one, and activate it by putting electricity into the socket. There are practice rooms where you can assemble the components into operating machines.

IN the more advanced sections of the program, you pick up various "spare parts" from the storerooms and take them into the practice room. Once the kids discovered the transportability of objects, they dragged spare components — even from the demonstration rooms — along with them wherever they went. Tanya in particular became a veritable pack rat, hauling extra clocks, flip-flops, delays and "knives" with her from room to room, "just in case."

The "knives" are used to open "cut" connections once they've been made so that the parts can be reassembled in a different fashion. Personally, being of a right-tool-for-the-right-job mentality, at least philosophically, I'd have preferred the program to use wirecutters for the job.

However, the inappropriate tool aside, the program certainly does lend itself to experimentation. One of Genevieve's early comments, "Let's go to the practice rooms and figure out how to do it without getting instructions," was typical of the response it inspires. And so was her reaction when she was presented with a demonstration of how oscillators work. "Let's make one of those in real life," she said.

The final, and by far the largest, segment of the program is "Rocky's Challenge," a choice of games to play using the machines you have learned how to make. Working out of the half-dozen storage rooms filled with logic gates, timers, clackers and wires, you assemble everything you need to solve such problems as eliminating all the crosses and blue circles from the symbols on the screen or all the diamonds preceding a cross in a moving stream of symbols. Once you think you have the solution to the particular problem in hand, you plug in Rocky's Boots, which starts the machine running and "boots out" the pieces chosen by your logic circuit.

The early problems, like eliminating all blue triangles, are easily solved by a young child. Later ones, like getting rid of "diamonds or purple but not both," are more difficult. In fact, my wife and I were up to 3 A.M. with that particular one — and please, if anyone out there has the solution, send it to me so we can get some sleep.

Part of our difficulty may have been a "glitch." If you use too many wires and gates in the construction of your machine, the current will not flow properly. The logic may be correct, but the machine will not work electronically. However, there's no way to tell which of the two potential problems is causing the malfunction. This is Rocky's biggest drawback. Later versions, I hope, will have a "glitch meter."

High on both Genevieve's and Tanya's wish list is also a Super Rocky's Boots, a version with "lots of clackers, bells, lights that can go on and off, more clocks" to coordinate all this additional cacophony, wires that can be turned and bent — the list goes on and on. Even as the program stands, however, if you have an Apple and kids, not getting Rocky's Boots is like having a toaster and not buying bread.

Rocky's Boots, for the Apple II Plus and Apple II e is available at \$49.95 from The Learning Company, Portola Valley, Calif. 94025, telephone (415) 328-5410.

shortly for the Mail!

HOW TO CREATE AN EXCITING VIDEO DISPLAY

It can be relatively easy to organize, clean up or beautify an unsightly, hard-to-read video page, says Aaron Marcus. Here are some of the guidelines Marcus uses:

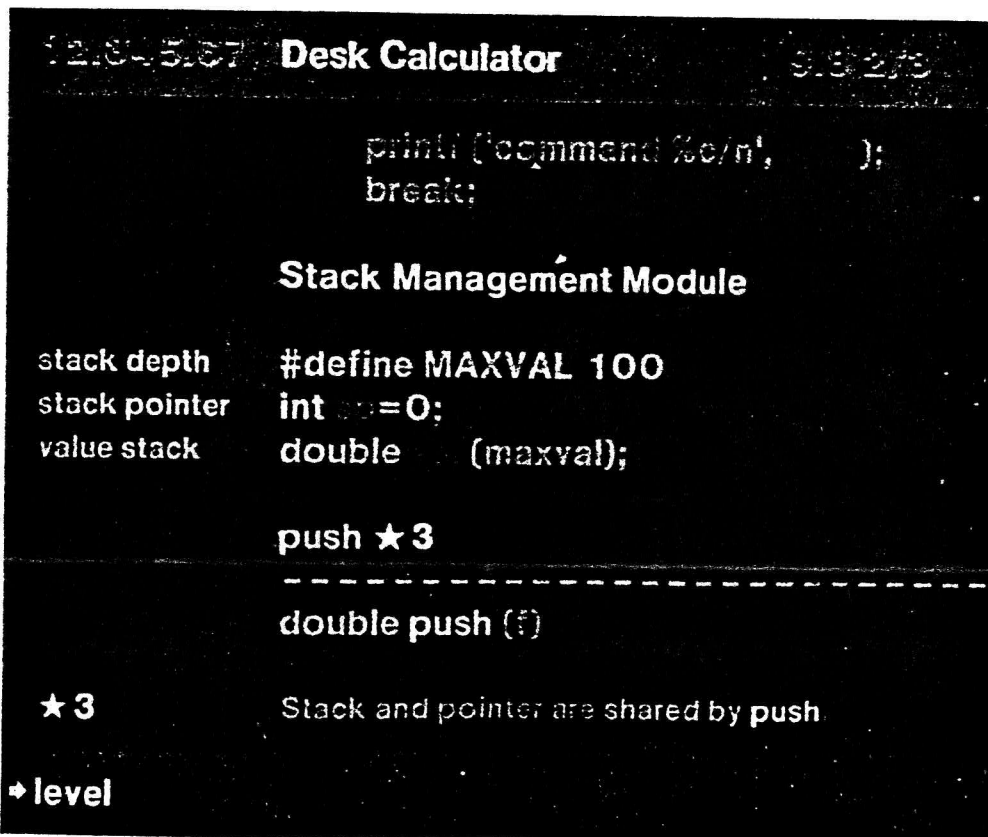
- Limit the computer's responses to lines that are 40 to 60 characters wide. This helps distinguish the computer's response from the user's query.
- Place important features in the same position on each video page, so people don't have to search every frame to find where things are located.
- Develop a standard layout approach for portraying different kinds of video pages. This involves design-

ing a *layout grid*, an invisible framework that lies behind every video page. This grid will guide users on their next moves. It also provides a mental map of the overall database.

- Enhance and clearly identify symbols to indicate where you are, where you came from and where you are going in the database. One of Marcus's ideas is to use colors to make the experience of using a data base like exploring a cave. (As the user goes deeper into the system, he has the impression of going deeper into a cavern, with the background getting darker and darker, and the letters glowing with appropriate colors.)

- Design a frame header (headline) or footer (footnote), such as a line of underscoring or reverse video characters across the top or bottom of the screen, to state clearly when users are in a monitor, command, or inquiry mode. This way, certain types of video pages can be identified with a limited number of symbols.

- Use upper- and lower-case type for maximum readability. Studies have shown it's more difficult to read and understand information printed in all uppercase. The more you conform to the accepted rules of good magazine and book design, the more attractive your video screens will be.



An illustration of polychrome screen design for a program writing aid. Different colors have been assigned to the locations of the various modules as well as the specific commands. The design provides the programmer with easily identifiable commands and a "mental map" of the program's structure. Note the use of lowercase type and the wide margins.